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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHARP, JEFFREY ANDREW

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,168

Applicant(s)

DALIDOWITZ ET AL.

Examiner

Jeffrey Sharp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

[1] This action is responsive to Applicant's remarks/amendment filed on 24 May 2005 with regard to the Official Office action mailed on 27 January 2005.

Status of Claims

[2] Claims 1-28 are pending.

Drawings

[3] The drawing(s) were previously objected for informalities. In view of Applicant's replacement drawing(s) submitted on 24 May 2005, all previous objection(s) to the drawings have been withdrawn. Accordingly, the changes have been entered.

However, new replacement Figure 7 submitted on 24 May 2005 is currently objected to, because numeral identifier "12" should be --42-- as supported in paragraph [0037] of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

[4] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[5] Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. US-5,749,692 in view of Perkins US-3,861,527, Hyner et al. US-5,275,892, and Gabriel et al. US-5,476,687.

Kish et al. teaches a carbon steel fastener having a head, tip, and shank comprising both ribs and flutes for improved holding power. The fastener is zinc-plated, and comprises a second chromate coating which is further coated with a polymeric layer (thermoplastic or thermoset) as substantially disclosed by Applicant, in order to provide further corrosion resistance.

However, Kish et al. is silent as to the actual layer **thicknesses**, a **textured head surface**, and **welded frangible wires**.

Perkins suggests providing a **textured surface to the head of a fastener** in order to facilitate the non-slippage of a striking head when used in a tool. Perkins discloses the textured head surface in combination with a collation of polymer-coated fasteners having a head, shank, tip, ribs, and '*surface deformations*' as substantially disclosed by Applicant. See Perkins, Figure 2 and Col 2 lines 42-45.

Hyner et al. suggest coating layers for any ferrous metal fastener. Hyner et al. disclose a zinc coating electrodeposited on a metal fastener for corrosion resistance having a **thickness** of generally 0.1-3 mils, as low as 0.05 mils, and preferably under 0.2 mil (Col 4 lines 47-52 converted from inches). This satisfies the limitations of the instant claims 1 and 2, '*greater than about 0.1 mil*' and '*1.2-2.0 mils*' as being a range within a range disclosed by the prior art. Hyner et al. also suggest an additional, second coating over the zinc layer, said coating comprising chromate or the like. Lastly, Hyner et al. suggest that coating thicknesses may be varied as an obvious matter of design choice, as it is stated: '*The thickness of the plating and/or coating layer is not limited and can be varied to obtain the desired level of protection*' (Hyner et al. Col 4 lines 63-66). This statement by Hyner et al. suggests that "coating thickness" is a variable that would have expected results for level of resistance to corrosion. Pertinent to claims 3 and 4, Hyner et al. suggest that so called "flash layers" over zinc (i.e., galvanized) layers are well known in the art, said flash layers generally comprising a thickness range of 0.01-0.05 mils (Col 5 lines 24-26). Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Further, it has been held that discovering an optimum value of a result

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effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Refer to MPEP § 2144.05.

Gabriel et al. suggest using **frangible wires** welded to the shanks of fasteners as a means for collating nails, as is well-known in the art (pertinent to claim 8). Other well-known means includes adhesive bonding and/or collating tape. It is advantageous to collate nails in order to automate nail driving, because such a collation would form a cartridge for a nail gun magazine. Note that Kish et al.'s fastener is adapted for use within a nail gun (col. 1 lines 58-61). Note that Gabriel et al. do not teach away from using the collating wires in combination with coated fasteners. The fasteners are in combination with welded wires, and have a sequential zinc, chromate, and polymeric coatings for corrosion resistance, higher pull out force, and lower insertion force. The polymeric layer also suits to cover spots that are missed by the zinc and chromate undercoating. See Gabriel et al. col. 5 line 63-col. 6 line 16, and col. 6 lines 30-33. Note that the wires collate the fasteners in approximate parallel relationship, said wires being generally perpendicular to the shanks (pertinent to claim 7), although it is also known to incline the fasteners to improve packing density. Gabriel shows that collated coated fasteners can obviously have a 'substantially smooth' shank (pertinent to claim 9).

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the fastener taught by Kish et al., to 1) be advantageously collated with **welded frangible wires** as suggested by Gabriel et al., in order to facilitate rapid automation with a conventional nail gun. It would have further been obvious to 2) provide a **textured surface** to the head of a coated nail as suggested by Perkins et al., in order to improve the striking surface by eliminating slippage (i.e., "skip-off") upon impact driving within a nail gun. Lastly, it would have been

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obvious to one of ordinary skill in the art from the teachings of Hyner et al., to 3) provide **any thickness** to the coatings disclosed by Kish et al., as it is obvious to modify coating thicknesses to perform optimally in corrosive environments.

[6] Claims 13-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. US-5,749,692 in view of Lat et al. US-5,178,903, Perkins US-3,861,527, and Hyner et al. US-5,275,892.

Kish et al. teaches a carbon steel fastener having a head, tip, and shank comprising both ribs and flutes for improved holding power. The fastener is zinc-plated, and comprises a second chromate coating which is further coated with a polymeric layer (thermoplastic or thermoset) as substantially disclosed by Applicant, in order to provide further corrosion resistance.

However, Kish et al. is silent as to the actual layer **thicknesses**, a **textured head surface**, and use of the fastener in combination with **pressure-treated wood** (Kish only broadly mentions general wooden or plywood workpieces).

Lat et al. suggest that a coated fastener comprising an electroplated zinc coating and subsequent coatings of chromate and polymeric material¹ is particularly **well-suited for pressure-treated wood**. Lat et al., for example, mentions pressure-treated wood containing, but not limited to, copper-chromium-arsenate (Col 3 lines 43-47). Applicant's admission of prior art on Page 3, lines 1-5 of paragraph 0009 discloses that due to environmental and other concerns, copper-chromium-arsenate has been replaced with ACQ and CBA (pertinent to claims 24-26).

¹ col 1 lines 18-22.

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Thus, it would be appreciated by one of ordinary skill in the art, that pressure treated wood generally encompasses wood treated with CCA, ACQ, and CBA.

Perkins suggests providing a **textured surface to the head of a fastener** in order to facilitate the non-slippage of a striking head when used in a tool. Perkins discloses the textured head surface in combination with a collation of polymer-coated fasteners having a head, shank, tip, ribs, and '*surface deformations*' as substantially disclosed by Applicant. See Perkins, Figure 2 and Col 2 lines 42-45.

Hyner et al. suggest coating layers for any ferrous metal fastener. Hyner et al. disclose a **zinc coating** electrodeposited on a metal fastener for corrosion resistance having a **thickness** of generally 0.1-3 mils, as low as 0.05 mils, and preferably under 0.2 mil (Col 4 lines 47-52 converted from inches). This satisfies the limitations of the instant claims 13, 14, and 27, '*greater than about 0.1 mil*' and '*1.2-2.0 mils*' as being a range within a range disclosed by the prior art. Hyner et al. also suggest an additional, second coating over the zinc layer, said coating comprising chromate or the like. Lastly, Hyner et al. suggest that coating thicknesses may be varied as an obvious matter of design choice, as it is stated: '*The thickness of the plating and/or coating layer is not limited and can be varied to obtain the desired level of protection*' (Hyner et al. Col 4 lines 63-66). This statement by Hyner et al. suggests that "coating thickness" is a variable that would have expected results for level of resistance to corrosion. Pertinent to claims 15, 16, and 28, Hyner et al. suggest that so called "flash layers" over zinc (i.e., galvanized) layers are well known in the art, said flash layers generally comprising a thickness range of 0.01-0.05 mils (Col 5 lines 24-26). Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine

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skill in the art. *In re Aller*, 105 USPQ 233. Further, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Refer to MPEP § 2144.05.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the fastener taught by Kish et al., to 1) be advantageously used in combination with a **pressure-treated wood** as suggested by Lat et al., due to the corrosive nature of the chemicals commonly impregnated into pressure-treated wood. It would have further been obvious to 2) provide a **textured surface** to the head of a coated nail as suggested by Perkins et al., in order to improve the striking surface by eliminating slippage (i.e., "skip-off") upon impact driving within a nail gun. Lastly, it would have been obvious to one of ordinary skill in the art from the teachings of Hyner et al., to 3) provide **any thickness** to the coatings disclosed by Kish et al., as it is obvious to modify coating thicknesses to perform optimally in corrosive environments.

As for claim 23, a screw can be considered a nail with any helical upset disposed about the shank, thus Kish et al. '692 may be considered a 'screw'. Further, the Hyner et al. reference suggests such anti-corrosive coatings in combination with "steel fasteners" such as "drill screws" (abstract).

Response to Arguments/Remarks

Claim Rejections - 35 USC § 103

[7] Claims 1-12 previously rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. US-5,749,692 in view of the Perkins US-3,861,527, Hyner et al. US-5,275,892, and Gabriel et al. US-5,476,687 references.

Applicant's arguments/remarks with regard to these references² have been fully considered, but are not persuasive.

Applicant's remarks with respect to claims 1-12 and the prior art references cited have been fully considered and are acknowledged.

In response to Applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning³, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to Applicant's assertion that "nowhere does Perkins indicate that it is "customary" to provide a textured surface to a head"⁴, Applicant does acknowledge the fact that "Perkins also discloses that the head of each fastener preferably has a roughened upper surface to avoid the problem of skip off when the fastener is being driven..."⁵

² pages 2-5

³ page 3, lines 11-13

⁴ middle of page 4

⁵ page 4, lines 5-7

In response to Applicant's traversal that the Examiner is impermissibly using the teachings of Applicant⁶, it is not required that the prior art disclose or suggest the properties newly-discovered by an applicant in order for there to be a prima facie case of obviousness. See *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897, 1905 (Fed. Cir. 1990). Moreover, as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. See *In re Beattie*, 974 F.2d 1309, 24 USPQ2d 1040 (Fed. Cir. 1992); *In re Kronig*, 539 F.2d 1300, 190 USPQ 425 (CCPA 1976) and *In re Wilder*, 429 F.2d 447, 166 USPQ 545 (CCPA 1970). In the instant case, the textured (i.e., "roughened") surface on the head suggested by Perkins is intended to serve as a means for preventing skip-off when used in a pneumatic nailer as acknowledged by Applicant⁷, but this textured/roughened surface may serve other purposes such as trademark, size indicia, or any other purpose such as the "improved adhesion" benefit disclosed by Applicant. Further, the term "textured" is broad enough to be reasonably construed as any surface having a "desirable characteristic". The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Additionally, mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. *In re Wiseman*, 596 F.2d 1019, 201 USPQ 658 (CCPA 1979).

tr.v. textured, texturing, textures

⁶ page 4, end of "Perkins discloses..." paragraph

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To give texture to, especially to impart desirable surface characteristics to: *texture a printing plate by lining and stippling it.*

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Perkins clearly demonstrates that a texture applied to the head of a collated nail/screw is a desirable characteristic, because it reduces skip-off tendencies in automatic nailers. Thus, the examiner has met the burden of establishing a *prima facie* case of obviousness because this desirable anti-skip feature would constitute "some motivation or suggestion to combine" to those having an ordinary skill in the art. Whether or not Applicant uses such a textured head for other advantageous reasons such as the improved adhesion of electrodepositing coatings is not important. Note that the Kish et al. '692 patent cites the Perkins '527 teaching reference.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F. 2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this regard, a conclusion of obviousness may be based on common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

⁷ page 4, lines 5-7

In response to Applicant's traversal that "it is known in the art to texture a surface to improve adhesion with a coating"⁸, the examiner has provided non-patent literature enclosed herewith, to render obvious the common practice of "texturing" surfaces (e.g., via etching, roughening, chemical means, or mechanical means) in order to improve adhesion, especially for protective zinc coatings.

In response to Applicant's argument⁹ that Hyner et al. teaches away from a zinc layer "deposited directly on the metal fastener as claimed in claim 1", Kish et al. demonstrates that a zinc layer may be "deposited directly on the metal fastener". Further, it has been held that the omission of an element or step and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184. In the instant case, the micro-throw layer taught by Hyner et al. merely serves to improve the interface between the steel fastener and zinc coating. In any event, the Hyner et al. reference is used to merely suggest and render obvious a zinc coating thickness of "greater than about 1.0 mil".

In response to Applicant's argument that "the Examiner cannot establish a prima facie case of obviousness"¹⁰, because the teaching references do not disclose each and every limitation set forth in the claims is not persuasive. If a teaching reference taught each and every limitation disclosed by Applicant, that reference would be generally considered an anticipatory reference.

In response to Applicant's argument that the Graham v. John Deere Co. test was not properly established¹¹, the examiner takes the position that the references relied upon are used

⁸ middle of page 4

⁹ top of page 5.

¹⁰ top half of page 6

¹¹ referring to MPEP 2141, middle of page 3

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for the sole purpose of demonstrating a *prima facie* case of obviousness. Office policy is to follow *Graham v. John Deere Co.* as indicated by in the consideration and determination of obviousness under 35 U.S.C. 103. The four factual inquires enunciated therein as a background for determining obviousness are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

The examiner maintains that these necessary steps have been taken.

(A) The scope of the Kish et al. reference has been determined, as it is stated:

"Kish et al. teaches a carbon steel fastener having a head, tip, and shank comprising both ribs and flutes for improved holding power. The fastener is zinc-plated, and comprises a second chromate coating which is further coated with a polymeric layer (thermoplastic or thermoset) as substantially disclosed by Applicant, in order to provide further corrosion resistance."

(B) The differences between the Kish et al. reference and Applicant have been clearly outlined, as it is stated:

"However, Kish et al. is silent as to the actual layer **thicknesses**, a **textured head surface**, and **welded frangible wires**/use of the fastener in combination with **pressure-treated wood**"

(C) The level of ordinary skill in the art is resolved, as it is stated:

"At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the fastener taught by Kish et al., to 1) be advantageously collated with **welded frangible wires** as suggested by Gabriel et al., in order to facilitate rapid automation with a conventional nail gun. It would have further been obvious to 2) provide a **textured surface** to the head of a coated nail as suggested by Perkins et al., in order to improve the striking surface by eliminating slippage (i.e., "skip-off") upon-impact driving within a nail gun. Lastly, it would have been obvious to one of ordinary skill in the art from the teachings of Hyner et al., to 3) provide **any thickness** to the coatings disclosed by Kish et al., as it is obvious to modify coating thicknesses to perform optimally in corrosive environments."

and

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"At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the fastener taught by Kish et al., to be advantageously used in combination with a **pressure-treated wood** as suggested by Lat et al., due to the corrosive nature of the chemicals commonly impregnated into pressure-treated wood."

(D) Evidence of secondary considerations has been evaluated, such evidence not being limited to the abovementioned court holdings and case law.

[8] Claims 13-28 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. US-5,749,692 in view of the Lat et al. US-5,178,903, Perkins US-3,861,527, and Hyner et al. US-5,275,892 references.



Applicant's arguments/remarks with regard to these references¹² have been fully considered, but are not persuasive.

Applicant's remarks with respect to claims 13-28 and the prior art references cited have been fully considered and are acknowledged.

It is to be noted that the term "galvanized" is broad enough to encompass a general coating of zinc. Such coatings are well-known in the art, may be used on bolts and screws to perform better within saline environments, and are typically "greater than about 1.0 mil" as evidenced by Hyner et al. '892. Note that the term "about" may be construed as "approximately" or "nearly". *Ex parte Eastwood Brindle & Knob (PO BdApp) 163 USPQ 316*. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233*. Further, it has been held that discovering an optimum value of a result effective variable involves

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only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Refer to MPEP § 2144.05. In the instant case, "coating thickness" is a controllable variable which would lead to expected results, said results being variation in resistance to corrosion.

gal·va·nize   **Pronunciation Key** (gǎl'və-nīz)
tr.v. gal·va·nized, gal·va·niz·ing, gal·va·niz·es

1. To coat (iron or steel) with rust-resistant zinc.

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Conclusion

[9] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

US-4,114,505 to Loeser et al. suggest a fastener subjected to a salt spray test, said fastener having a "texture" to improve coating cohesion (col. 3 lines 11-19, claim 4).

NPL <http://www.usace.army.mil/inet/usace-docs/eng-manuals/em1110-2-3401/c-6.pdf> provides background information on surface treating prior to coating.

NPL "*Electrodeposition - The Materials Science of Coatings and Substrates*" provides background information on adhesion and corrosion.

[10] **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

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MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

[11] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

NEW CENTRAL FAX NUMBER

Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005. After September 15, 2005, the old number will no longer be in service and 571-273-8300 will be the only facsimile number recognized for "centralized delivery".

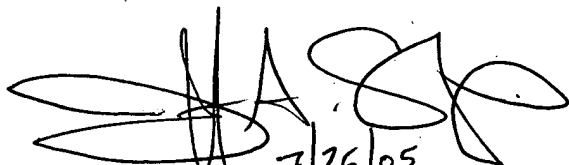
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JAS



7/26/05



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